

MSU - Center for Advanced Vehicular Systems P.O. Box 6343 Mississippi State, MS 39762
AGENCY ADDRESS

Dr. Mark E. Keenum
CHIEF EXECUTIVE OFFICER

	Actual Expenses FY Ending June 30, 2010	Estimate Expenses FY Ending June 30, 2011	Requested for FY Ending June 30, 2012	Requested Increase (+) or Decrease (-) FY 2012 vs. FY 2011 (Col. 3 vs. Col. 2)	
				AMOUNT	PERCENT
I. A. PERSONAL SERVICES					
1. Salaries, Wages & Fringe Benefits (Base)	2,121,742	2,122,553	2,122,553		
a. Additional Compensation					
b. Proposed Vacancy Rate (Dollar Amount)					
c. Per Diem					
Total Salaries, Wages & Fringe Benefits	2,121,742	2,122,553	2,122,553		
2. Travel					
a. Travel & Subsistence (In-State)	17,785	18,500	18,500		
b. Travel & Subsistence (Out-of-State)	31,986	35,000	35,000		
c. Travel & Subsistence (Out-of-Country)	2,978	3,200	3,200		
Total Travel	52,749	56,700	56,700		
B. CONTRACTUAL SERVICES (Schedule B):					
a. Tuition, Rewards & Awards	3,294	4,000	4,000		
b. Communications, Transportation & Utilities	2,741	3,300	3,300		
c. Public Information					
d. Rents	2,894	3,450	3,450		
e. Repairs & Service	45,078	52,000	52,000		
f. Fees, Professional & Other Services	26,313	30,030	30,030		
g. Other Contractual Services	56,904	67,935	67,935		
h. Data Processing	94,501	100,000	100,000		
i. Other	300,458	835,914	837,440	1,526	0.18%
Total Contractual Services	532,183	1,096,629	1,098,155	1,526	0.13%
C. COMMODITIES (Schedule C):					
a. Maintenance & Construction Materials & Supplies	1,050	9,533	11,533	2,000	20.97%
b. Printing & Office Supplies & Materials	9,059	9,770	9,770		
c. Equipment, Repair Parts, Supplies & Accessories					
d. Professional & Scientific Supplies & Materials					
e. Other Supplies & Materials	55,368	59,106	59,106		
Total Commodities	65,477	78,409	80,409	2,000	2.55%
D. CAPITAL OUTLAY:					
1. Total Other Than Equipment (Schedule D-1)	115,000				
2. Equipment (Schedule D-2):					
b. Road Machinery, Farm & Other Working Equipment					
c. Office Machines, Furniture, Fixtures & Equipment					
d. IS Equipment (Data Processing & Telecommunications)	60,425	65,000	65,000		
e. Equipment - Lease Purchase					
f. Other Equipment	44,625	50,000	125,000	75,000	150.00%
Total Equipment (Schedule D-2)	105,050	115,000	190,000	75,000	65.21%
3. Vehicles (Schedule D-3)	12,265				
4. Wireless Comm. Devices (Schedule D-4)					
E. SUBSIDIES, LOANS & GRANTS (Schedule E):	443,849	457,000	457,000		
TOTAL EXPENDITURES	3,448,315	3,926,291	4,004,817	78,526	2.00%
II. BUDGET TO BE FUNDED AS FOLLOWS:					
Cash Balance-Unencumbered					
General Fund Appropriation (Enter General Fund Lapse Below)	3,448,315	3,926,291	4,004,817	78,526	2.00%
State Support Special Funds					
Federal Funds _____ Other Special Funds (Specify) _____					
Less: Estimated Cash Available Next Fiscal Period					
TOTAL FUNDS (equals Total Expenditures above)	3,448,315	3,926,291	4,004,817	78,526	2.00%
GENERAL FUND LAPSE	360,951				
III. PERSONNEL DATA					
Number of Positions Authorized in Appropriation Bill	a.) Full Perm	55	55	55	
	b.) Full T-L				
	c.) Part Perm.				
	d.) Part T-L	2	2	2	
Average Annual Vacancy Rate (Percentage)	a.) Full Perm				
	b.) Full T-L				
	c.) Part Perm.				
	d.) Part T-L				

Approved by: _____
Official of Board or Commission

Budget Officer: Mr. Wayne Bland / wbland@finadmin.msstate.edu

Phone Number: 662-325-2303

Submitted by: Dr. Mark E. Keenum
Name

Title: President

Date: July 22, 2010

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2010 Actual Amount	% Of Line Item	% Of Total Budget	FY 2011 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2012 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	2,121,742	100.00%		2,122,553	100.00%		2,122,553	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Salaries	2,121,742		61.52%	2,122,553		54.06%	2,122,553		53.00%
1. General State Support Special (Specify)	52,749	100.00%		56,700	100.00%		56,700	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Travel	52,749		1.52%	56,700		1.44%	56,700		1.41%
1. General State Support Special (Specify)	532,183	100.00%		1,096,629	100.00%		1,098,155	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Contractual	532,183		15.43%	1,096,629		27.93%	1,098,155		27.42%
1. General State Support Special (Specify)	65,477	100.00%		78,409	100.00%		80,409	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Commodities	65,477		1.89%	78,409		1.99%	80,409		2.00%

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2010 Actual Amount	% Of Line Item	% Of Total Budget	FY 2011 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2012 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	115,000	100.00%							
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Other Than Equipment	115,000		3.33%						
1. General State Support Special (Specify)	105,050	100.00%		115,000	100.00%		190,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Equipment	105,050		3.04%	115,000		2.92%	190,000		4.74%
1. General State Support Special (Specify)	12,265	100.00%							
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Vehicles	12,265		0.35%						
1. General State Support Special (Specify)									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
Total Wireless Comm. Devices									

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2010 Actual Amount	% Of Line Item	% Of Total Budget	FY 2011 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2012 Requested Amount	% Of Line Item	% Of Total Budget
1. General _____ State Support Special (Specify) _____	443,849	100.00%		457,000	100.00%		457,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal _____ Other Special (Specify) _____									
9.									
10.									
11.									
12.									
Total Subsidies, Loans & Grants	443,849		12.87%	457,000		11.63%	457,000		11.41%
1. General _____ State Support Special (Specify) _____	3,448,315	100.00%		3,926,291	100.00%		4,004,817	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal _____ Other Special (Specify) _____									
9.									
10.									
11.									
12.									
TOTAL	3,448,315		100.00%	3,926,291		100.00%	4,004,817		100.00%

SPECIAL FUNDS DETAIL

MSU - Center for Advanced Vehicular Systems
Name of Agency

S. STATE SUPPORT SPECIAL FUNDS		(1) Actual Revenues FY 2010	(2) Estimated Revenues FY 2011	(3) Requested Revenues FY 2012
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Budget Contingency Fund	BCF - Budget Contingency Fund			
Education Enhancement Fund	EEF - Education Enhancement Fund			
Health Care Expendable Fund	HCEF - Health Care Expendable Fund			
Tobacco Control Fund	TCF - Tobacco Control Fund			
ARRA - Education, Discretionary, FMAP	ARRA - Education, Discretionary, FMAP			
Hurricane Disaster Reserve Fund	HDRF - Hurricane Disaster Reserve Fund			
Section S TOTAL				

A. FEDERAL FUNDS*		Percentage Match Requirement		(1) Actual Revenues FY 2010	(2) Estimated Revenues FY 2011	(3) Requested Revenues FY 2012
Source (Fund Number)	Detailed Description of Source	FY 2011	FY 2012			
	Cash Balance-Unencumbered					
Section A TOTAL						

B. OTHER SPECIAL FUNDS (NON-FED'L)		(1) Actual Revenues FY 2010	(2) Estimated Revenues FY 2011	(3) Requested Revenues FY 2012
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Section B TOTAL				

Section S + A + B TOTAL				
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C. TREASURY FUND/BANK ACCOUNTS*			(1) Reconciled Balance as of 6/30/10	(2) Balance as of 6/30/11	(3) Balance as of 6/30/12
Name of Fund/Account	Fund/Account Number	Name of Bank (If Applicable)			

* Any non-federal funds that have restricted uses must be identified and narrative of restrictions attached.

**NARRATIVE OF SPECIAL FUNDS DETAIL
AND TREASURY FUND/BANK ACCOUNTS**

MSU - Center for Advanced Vehicular Systems

Name of Agency

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. _____ of _____ 2 Programs

AGENCY

SUMMARY OF ALL PROGRAMS

PROGRAM

	FY 2010 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,121,742				2,121,742
Travel	52,749				52,749
Contractual Services	532,183				532,183
Commodities	65,477				65,477
Other Than Equipment	115,000				115,000
Equipment	105,050				105,050
Vehicles	12,265				12,265
Wireless Comm. Devs.					
Subsidies, Loans & Grants	443,849				443,849
Total	3,448,315				3,448,315
No. of Positions (FTE)	57.00				57.00

	FY 2011 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,122,553				2,122,553
Travel	56,700				56,700
Contractual Services	1,096,629				1,096,629
Commodities	78,409				78,409
Other Than Equipment					
Equipment	115,000				115,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	457,000				457,000
Total	3,926,291				3,926,291
No. of Positions (FTE)	57.00				57.00

	FY 2012 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe					
Travel					
Contractual Services	1,526				1,526
Commodities	2,000				2,000
Other Than Equipment					
Equipment	75,000				75,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	78,526				78,526
No. of Positions (FTE)					

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems
AGENCY

Program No. _____ of 2 Programs

SUMMARY OF ALL PROGRAMS

PROGRAM

FY 2012 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,122,553			2,122,553
Travel	56,700			56,700
Contractual Services	1,098,155			1,098,155
Commodities	80,409			80,409
Other Than Equipment				
Equipment	190,000			190,000
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	457,000			457,000
Total	4,004,817			4,004,817
No. of Positions (FTE)	57.00			57.00

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

**SUMMARY OF PROGRAMS
FORM MBR-1-03sum**

MSU - Center for Advanced Vehicular Systems _____
Agency Name

FUNDING REQUESTED FISCAL YEAR 2012

PROGRAM	GENERAL	ST.SUPP.SPECIAL	FEDERAL	OTHER SPECIAL	TOTAL
1. RESEARCH	3,348,906				3,348,906
2. PUBLIC SERVICE	655,911				655,911
SUMMARY OF ALL PROGRAMS	4,004,817				4,004,817

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

	FY 2010 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	1,863,953				1,863,953
Travel	32,997				32,997
Contractual Services	483,221				483,221
Commodities	46,449				46,449
Other Than Equipment	115,000				115,000
Equipment	105,050				105,050
Vehicles	12,265				12,265
Wireless Comm. Devs.					
Subsidies, Loans & Grants	218,695				218,695
Total	2,877,630				2,877,630
No. of Positions (FTE)	52.29				52.29

	FY 2011 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	1,838,553				1,838,553
Travel	39,700				39,700
Contractual Services	989,218				989,218
Commodities	68,409				68,409
Other Than Equipment					
Equipment	115,000				115,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	231,500				231,500
Total	3,282,380				3,282,380
No. of Positions (FTE)	52.29				52.29

	FY 2012 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe					
Travel					
Contractual Services	1,526				1,526
Commodities	2,000				2,000
Other Than Equipment					
Equipment	63,000				63,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	66,526				66,526
No. of Positions (FTE)					

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

FY 2012 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	1,838,553			1,838,553
Travel	39,700			39,700
Contractual Services	990,744			990,744
Commodities	70,409			70,409
Other Than Equipment				
Equipment	178,000			178,000
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	231,500			231,500
Total	3,348,906			3,348,906
No. of Positions (FTE)	52.29			52.29

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

	FY 2010 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	257,789				257,789
Travel	19,752				19,752
Contractual Services	48,962				48,962
Commodities	19,028				19,028
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	225,154				225,154
Total	570,685				570,685
No. of Positions (FTE)	4.71				4.71

	FY 2011 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	284,000				284,000
Travel	17,000				17,000
Contractual Services	107,411				107,411
Commodities	10,000				10,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	225,500				225,500
Total	643,911				643,911
No. of Positions (FTE)	4.71				4.71

	FY 2012 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe					
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment	12,000				12,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	12,000				12,000
No. of Positions (FTE)					

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

FY 2012 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2012 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	284,000			284,000
Travel	17,000			17,000
Contractual Services	107,411			107,411
Commodities	10,000			10,000
Other Than Equipment				
Equipment	12,000			12,000
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	225,500			225,500
Total	655,911			655,911
No. of Positions (FTE)	4.71			4.71

Note: FY2012 Total Request = FY2011 Estimated + FY2012 Incr(Decr) for Continuation + FY2012 Expansion/Reduction of Existing Activities + FY2012 New Activities.

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
	FY 2011 Appropriation	Escalations By DFA	Non-Recurring Items	Core Operations	Total Funding Change	FY 2012 Total Request		
EXPENDITURES:								
SALARIES	1,838,553					1,838,553		
GENERAL	1,838,553					1,838,553		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TRAVEL	39,700					39,700		
GENERAL	39,700					39,700		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	989,218			1,526	1,526	990,744		
GENERAL	989,218			1,526	1,526	990,744		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	68,409			2,000	2,000	70,409		
GENERAL	68,409			2,000	2,000	70,409		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT	115,000			63,000	63,000	178,000		
GENERAL	115,000			63,000	63,000	178,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	231,500					231,500		
GENERAL	231,500					231,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	3,282,380			66,526	66,526	3,348,906		

FUNDING:

GENERAL FUNDS	3,282,380			66,526	66,526	3,348,906		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	3,282,380			66,526	66,526	3,348,906		

POSITIONS:

GENERAL FTE	52.29					52.29		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	52.29					52.29		

PRIORITY LEVEL:

				1				
	FY 2011 Appropriation	Escalations By DFA	Non-Recurring Items	Core Operations	Total Funding Change	FY 2012 Total Request		
EXPENDITURES:								
SALARIES	284,000					284,000		
GENERAL	284,000					284,000		
ST.SUP.SPECIAL								

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
FEDERAL								
OTHER								
TRAVEL	17,000					17,000		
GENERAL	17,000					17,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	107,411					107,411		
GENERAL	107,411					107,411		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	10,000					10,000		
GENERAL	10,000					10,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT				12,000	12,000	12,000		
GENERAL				12,000	12,000	12,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	225,500					225,500		
GENERAL	225,500					225,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	643,911			12,000	12,000	655,911		

FUNDING:

GENERAL FUNDS	643,911			12,000	12,000	655,911		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	643,911			12,000	12,000	655,911		

POSITIONS:

GENERAL FTE	4.71					4.71		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	4.71					4.71		

PRIORITY LEVEL:

				2				
--	--	--	--	---	--	--	--	--

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY NAME

PROGRAM NAME

I. Program Description:

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS generates timely solutions relevant to suppliers and manufacturers, CAVS also seeks to expand knowledge that is essential for sustained economic development by directly involving students in research activities.

II. Program Objective:

The objective of CAVS is to serve Mississippi State University, government, and industry through research and development of advanced computational modeling, simulation, and design of physical systems to solve real world problems. CAVS houses multiple research groups that provide cross-disciplinary research capabilities to address advancing technologies to solve complex problems for industry and our customers. As a result of CAVS' application-driven, team-oriented approach to basic and applied research on complex industrially-relevant engineering problems, we have contributed to:

- * improved vehicle performance and reduced design cycle time and cost;
- * timely generation of knowledge on the behavior and capabilities of missile, flight, naval vessels and other physical systems;
- * analysis of behavior and performance of engineering systems (including humans) under adverse or catastrophic conditions;
- * development of high-fidelity simulation tools and training;
- * simulation and design systems to both enable and support designers and manufacturers of land, sea, air and space vehicular systems.

III. Current program activities as supported by the funding in Columns 6-15 (FY 11 Estimated & FY 12 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Core Operations:**

For FY2012, CAVS is requesting an increase in its State funding primarily to assist in acquiring a high-speed imaging system that includes lighting, lenses, mounting hardware, a computer and software for controlling the camera and archiving images, as well as the high speed camera itself. Typical applications of the system include, but are not limited to:

- *Aerodynamics investigations
- *Bio-mechanics studies
- *Component safety testing
- *Impact analysis
- *Production line diagnostics
- *Vehicle rollover testing
- *Automotive Crash Testing
- *Combustion Studies
- *Ballistics/Detonics Research
- *Particle Image Velocimetry (PIV)
- *Biological & Chemical Microscopy
- *Crack Propagation

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

I. Program Description:

In support of its overall mission, CAVS offers a direct interface to manufacturers and industries throughout the state and region via CAVS Engineering Extension located in Canton, Mississippi. The services offered by CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology.

II. Program Objective:

Although CAVS research, development, and extension activities are important to Nissan and its suppliers in attaining its goals, it is clear that CAVS has a broader impact. We are currently working with the PACCAR, SeverStal, and Nucor as well. Further evidence of CAVS' impact is evident by the US Navy's use of our software for Simulation of Smoke and Fire Propagation on naval vessels. CAVS current efforts have touched on many manufacturers and hundreds of employees in the State, especially via our workforce training efforts. From this foundation, CAVS brings the promise for enhanced productivity to further grow the employment base. Thus, the financial support for growing CAVS and its cadre of skilled technologists has significant and long-term implications for the State of Mississippi.

III. Current program activities as supported by the funding in Columns 6-15 (FY 11 Estimated & FY 12 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Core Operations:**

For FY12, CAVS is requesting an increase in State funding in order to expand the engineering extension component of CAVS by replacing computers in the classroom at Canton. Original plans were to replace these units in FY10, however, reduced funding has precluded that from occurring. These computers are used frequently to teach workshops pertaining to solid modeling, simulation modeling, and statistical analysis.

PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

1 - RESEARCH
 PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
1 # Agency Proposals	44.00	45.00	46.00
2 # Company Proposals	6.00	6.00	6.00
3 \$ Agency Proposals (in millions)	32.00	32.50	33.00
4 \$ Company Proposals (in millions)	0.22	0.23	0.24
5 Expenditures - Internal (in millions)	5.34	5.40	5.50
6 Expenditures - Agency (in millions)	15.43	15.50	15.60
7 Expenditures - Company (in millions)	0.28	0.28	0.29
8 # Awards - Agency	39.00	39.00	40.00
9 # Awards - Company	5.00	5.00	6.00
10 \$ Agency Awards (in millions)	17.07	17.10	17.12
11 \$ Company Awards (in millions)	0.21	0.21	0.22
12 # Managers	3.50	3.50	4.00
13 # Academic Faculty	26.00	26.00	27.00
14 # Research Professionals	48.50	48.50	49.00
15 # Support Staff	13.00	13.00	14.00
16 # Post Docs	12.00	12.00	13.00
17 # PhD Students Employed	33.50	33.50	34.00
18 # MS Students Employed	34.50	34.50	35.00
19 # Undergraduate Students Employed	93.50	93.50	93.60
20 # Journal Articles Submitted	10.00	11.00	12.00
21 # Conference Papers Submitted	8.00	9.00	10.00
22 # Authors of Proposals	20.00	26.00	30.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Mangers	1.69	1.73	1.75
2 \$ Proposals / # Faculty & # Managers (in millions)	1.11	1.12	1.13
3 Expenditures / # Faculty & # Mangers	0.71	0.72	0.72
4 # Awards / # Faculty & # Managers	1.49	1.49	1.52
5 Expenditures / # Support Staff and Others (in millions)	0.08	0.09	0.09
6 # Publications/ # Faculty & # Managers	1.93	2.00	2.15
7 # Conference Papers / # Faculty & # Mangers	0.85	0.90	0.95
8 # Technical Reports / # Faculty & # Managers	0.17	0.18	0.20

PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

1 - RESEARCH
 PROGRAM NAME

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
1 Book/Book Chapters Published	1.00	1.00	2.00
2 Articles Published in Trade Journals	2.00	3.00	4.00
3 Articles Published in Peer-reviewed Journals	10.00	11.00	13.00
4 Peer-reviewed Conference Papers	13.00	14.00	15.00
5 Peer-reviewed Conference Abstracts & Posters	1.00	2.00	3.00
6 Theses/Dissertations	2.00	3.00	4.00
7 Technical Reports	2.00	3.00	4.00
8 Awards/Recognitions	3.00	4.00	5.00
9 Non-refereed Conf. Papers/Abstracts/Posters	1.00	2.00	3.00

PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
1 # Agency Proposals	5.00	5.00	6.00
2 # Company Proposals	7.00	7.00	7.00
3 \$ Agency Proposals	4.00	4.00	4.00
4 \$ Company Proposals	0.25	0.25	0.26
5 Expenditures - Internal	0.60	0.62	0.64
6 Expenditures - Agencies	0.02	0.02	0.02
7 Expenditures - Company	0.10	0.10	0.11
8 Award - Agencies	3.00	3.00	4.00
9 Awards - Company	1.00	1.00	1.50
10 \$ Agency Awards	0.85	0.86	0.86
11 \$ Company Awards	0.03	0.03	0.03
12 Managers	1.00	1.00	1.00
13 # Academic Faculty	1.00	1.00	1.00
14 # Research Professionals	4.00	4.00	4.00
15 # Support Staff	2.50	2.50	2.50
16 # Journal Articles Submitted	8.00	8.00	9.00
17 # Conference Papers Submitted	4.00	4.00	5.00
18 # Authors of Proposals	8.00	8.00	8.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Managers	6.00	6.00	6.00
2 \$ Proposals / # Faculty & Managers	2.18	2.18	2.19
3 Expenditures / # Faculty & Managers	0.06	0.06	0.06
4 # Awards / # Faculty & Managers	2.00	2.10	2.20
5 Expenditures / # Support Staff and Others	0.02	0.02	0.02
6 # Publications/# Faculty & Managers	5.00	5.00	6.00
7 # Papers Presented/# Faculty & Mangers	1.00	1.15	1.20
8 Tech Reports/# Faculty & Managers	1.00	1.10	1.10

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2010</u> <u>ACTUAL</u>	<u>FY 2011</u> <u>ESTIMATED</u>	<u>FY 2012</u> <u>PROJECTED</u>
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PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

<u>MSU - Center for Advanced Vehicular Systems</u>		<u>2 - PUBLIC SERVICE</u>		
<u>AGENCY NAME</u>		<u>PROGRAM NAME</u>		
1	Books/Book Chapters Published	1.00	1.00	2.00
2	Articles Published in Trade Journals	2.00	2.00	3.00
3	Articles Published in Peer-reviewed Journals	3.00	3.00	4.00
4	Peer-reviewed Conference Papers	2.00	2.00	3.00
5	Peer-reviewed Conference Abstracts & Posters	3.00	3.00	4.00
6	Technical Reports	2.00	2.00	3.00
7	Awards/Recognitions	1.00	1.00	2.00

PROGRAM 3% GENERAL FUND REDUCTION AND NARRATIVE EXPLANATION

MSU - Center for Advanced Vehicular Systems

	Fiscal Year 2011 Funding			FY 2011 GF PERCENT REDUCED
	Total Funds	Reduced Amount	Reduced Funding Amount	
Program Name: (1) RESEARCH				
GENERAL	3,282,380	(98,472)	3,183,908	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	3,282,380	(98,472)	3,183,908	
Narrative Explanation: A 3% reduction would be absorbed by reducing the amount of cost share commitments.				
Program Name: (2) PUBLIC SERVICE				
GENERAL	643,911	(19,317)	624,594	(2.99%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	643,911	(19,317)	624,594	
Narrative Explanation: A 3% reduction would be absorbed by reducing the amount of cost share commitments.				
SUMMARY OF ALL PROGRAMS				
GENERAL	3,926,291	(117,789)	3,808,502	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	3,926,291	(117,789)	3,808,502	

Board of Trustees of Institutions of Higher Learning MEMBERS

MSU - Center for Advanced Vehicular Systems

Agency

A. Explain Rate and manner in which board members are reimbursed:

Board members are reimbursed through the Institutions of Higher Learning System Administration budget with a per diem of \$40 plus expenses.

B. Estimated number of meetings FY2011

12 (twelve)

C.	Names of Members	City, Town, Residence	Appointed By	Date of Appointment	Length of Term
1.	<u>Dr. L. Stacy Davidson, Jr.</u>	<u>Cleveland, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
2.	<u>Dr. Bettye Neely</u>	<u>Grenada, MS</u>	<u>Musgrove</u>	<u>June 2000</u>	<u>12 years</u>
3.	<u>Mr. Scott Ross</u>	<u>West Point, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
4.	<u>Ms. Amy Whitten</u>	<u>Oxford, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
5.	<u>Mr. Ed Blakeslee</u>	<u>Gulfport, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
6.	<u>Mr. Bob Owens</u>	<u>Terry, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
7.	<u>Mr. Aubrey Patterson</u>	<u>Tupelo, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
8.	<u>Ms. Robin Robinson</u>	<u>Laurel, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
9.	<u>Mr. Alan W. Perry</u>	<u>Jackson, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
10.	<u>Ms. Christine L. Pickering</u>	<u>Biloxi, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
11.	<u>Mr. C.D. Smith, Jr.</u>	<u>Meridian, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
12.	<u>Dr. Douglas W. Rouse</u>	<u>Hattiesburg, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>

Identify Statutory Authority (Code Section or Executive Order Number)*

Constitutional Amendment 213A of the Constitution of the State of Mississippi

*If Executive Order, please attach copy.

**SCHEDULE B
CONTRACTUAL SERVICES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012
A. TUITION, REWARDS & AWARDS (61010-61099)			
Tuition			
Professional Development Fees	3,294	4,000	4,000
TOTAL (A)	3,294	4,000	4,000
B. TRANSPORTATION & UTILITIES (61100-61299)			
Postage/Mail Services	224	250	250
Transportation of Goods	1,057	1,500	1,500
Garbage Disposal	1,460	1,550	1,550
TOTAL (B)	2,741	3,300	3,300
C. PUBLIC INFORMATION ((61300-61399)			
Advertising & Public Information			
TOTAL (C)			
D. RENTS (61400-61499)			
Building & Floor Space	750	1,000	1,000
Computer Usage Charges	1,890	2,100	2,100
Vehicle Rental	254	350	350
TOTAL (D)	2,894	3,450	3,450
E. REPAIRS & SERVICES (61500-61599)			
Repair/Maintenance - Bldgs, Grounds	45,078	52,000	52,000
TOTAL (E)	45,078	52,000	52,000
F. FEES, PROFESSIONAL & OTHER SERVICES (61600-61699)			
Laboratory & Testing Fees	26,313	30,030	30,030
TOTAL (F)	26,313	30,030	30,030
G. OTHER CONTRACTUAL SERVICES (61700-61899)			
Membership Dues	1,315	1,500	1,500
Subscriptions			
Employee Recruitment Costs/Advertising Positions			
Non-Employee Expenses Reimbursement			
Non-Reportable Participating Costs			
Laundry and Dry Cleaning	347	385	385
Employee Moving Expenses	8,443	8,500	8,500
Custodial Services	43,121	44,000	44,000
Maintenance Contracts - Equipment	2,955	12,800	12,800
Pest Control	723	750	750
TOTAL (G)	56,904	67,935	67,935
H. INFORMATION TECHNOLOGY (61900-61990)			
Telephone Charges	55,382	57,000	57,000
Computer Software Site Licenses	12,750	15,000	15,000
Computer Software Maintenance	26,369	28,000	28,000
TOTAL (H)	94,501	100,000	100,000
I. OTHER (61991-61999)			
Contractual Services - HPC Retainage	293,000	300,000	300,000
Other Miscellaneous Contractual Services (includes MTA)	7,458	535,914	537,440
TOTAL (I)	300,458	835,914	837,440

**SCHEDULE B
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012
GRAND TOTAL <i>(Enter on Line I-B of Form MBR-1)</i>	532,183	1,096,629	1,098,155
FUNDING SUMMARY:			
GENERAL FUNDS	532,183	1,096,629	1,098,155
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	532,183	1,096,629	1,098,155

**SCHEDULE C
COMMODITIES**

MSU - Center for Advanced Vehicular Systems
Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012
A. MAINTENANCE & CONSTR. MATERIALS & SUPPLIES (62010-62099)			
Physical Plant Materials	1,050	9,533	11,533
Total (A)	1,050	9,533	11,533
B. PRINTING & OFFICE SUPPLIES & MATERIALS (62100-62199)			
Printing, Binding, Padding	1,503	1,750	1,750
Duplication & Reproduction Supplies	18	20	20
Office Supplies & Materials	7,538	8,000	8,000
Total (B)	9,059	9,770	9,770
E. OTHER SUPPLIES & MATERIALS (62400-62999)			
Food	2,578	3,000	3,000
Other Supplies & Materials	348	500	500
Telecom Costs - Other	4,020	4,100	4,100
Expendible Equipment (less than \$1000)	11,735	12,500	12,500
Pro-Card -Grocery	889	1,000	1,000
Pro-Card -Home Supply	283	300	300
Pro-Card -Electronics	972	1,000	1,000
Pro-Card -Specialty Retail	1,537	1,706	1,706
Pro-Card -Business Supply/Services	14,019	15,000	15,000
Pro-Card -Wholesale Trade	18,987	20,000	20,000
Total (E)	55,368	59,106	59,106
GRAND TOTAL (A, B, C, D & E) <i>(Enter on Line I-C of Form MBR-1)</i>	65,477	78,409	80,409
FUNDING SUMMARY:			
GENERAL FUNDS	65,477	78,409	80,409
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	65,477	78,409	80,409

**SCHEDULE D-1
CAPITAL OUTLAY
OTHER THAN EQUIPMENT**

MSU - Center for Advanced Vehicular Systems
Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012
A. LANDS (63100-63199)			
63110 Land for Buildings			
63120 Land for Right-of-Way			
63170 Land Purchased for Other Purposes			
TOTAL (A)			
B. BUILDINGS & IMPROVEMENTS (63200-63299)			
Support for Dynamometer Bldg Expansion	115,000		
TOTAL (B)	115,000		
C. INFRASTRUCTURE & OTHER (63500-63999)			
639XX Other			
TOTAL (C)			
GRAND TOTAL <i>(Enter on Line I-D-1 of Form MBR-1)</i>	115,000		
FUNDING SUMMARY:			
GENERAL FUNDS	115,000		
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	115,000		

**SCHEDULE D-2
CAPITAL OUTLAY EQUIPMENT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

EQUIPMENT BY ITEM	Act. FY Ending June 30, 2010		Est. FY Ending June 30, 2011		Req. FY Ending June 30, 2012		
	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Cost Per Unit	Total Cost
A. VEHICLES (see form MBR-1-D-3)							
B. ROAD MACHINERY, FARM & OTHER EQUIPMENT							
63320 Road Machinery							
TOTAL (B)							
C. OFFICE MACHINES, FURNITURE, FIXTURES, EQUIP.							
Copier (R)							
Lateral File (N)							
Shredder (R)							
Laser Jet Printer/Copier/Scanner (R)							
TOTAL (C)							
D. IS EQUIPMENT (DP & TELECOMMUNICATIONS)							
Desktop Computers (R)	25	60,425	25	65,000	25	2,600	65,000
TOTAL (D)		60,425		65,000			65,000
E. EQUIPMENT - LEASE PURCHASE (63460-63476)							
634XX Lease Purchases							
TOTAL (E)							
F. OTHER EQUIPMENT							
Dynomometer (N)	1	38,325					
Elec Regenerative Braking Converter (N)	1	6,300					
Fourier Transform Infrared Spectrometer (N)			1	50,000			
High-Speed Digital Imaging System (N)					1	125,000	125,000
TOTAL (F)		44,625		50,000			125,000
GRAND TOTAL <i>(Enter on Line I-D-2 of Form MBR-1)</i>		105,050		115,000			190,000
FUNDING SUMMARY:							
GENERAL FUNDS		105,050		115,000			190,000
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS		105,050		115,000			190,000

**SCHEDULE D-3
PASSENGER/WORK VEHICLES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	Vehicle Inventory June 30, 2010	FY Ending June 30, 2010		FY Ending June 30, 2011		FY Ending June 30, 2012	
		No. of Vehicles	Actual Cost	No. of Vehicles	Estimated Cost	No. of Vehicles	Requested Cost
A. PASSENGER & WORK VEHICLES (63310, 63390-63400)							
63310 Automobile, Compact Sedan (AU FS)	1	1	12,265				
TOTAL (A)	1	1	12,265				
B. BETTERMENTS OR ACCESSORIES FOR VEHICLES (63395)							
63395 Betterments or Accessories for Vehicles							
TOTAL (B)							
GRAND TOTAL <i>(Enter on Line I-D-3 of Form MBR-1)</i>			12,265				
FUNDING SUMMARY:							
GENERAL FUNDS			12,265				
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS			12,265				

**SCHEDULE D-4
WIRELESS COMMUNICATION DEVICES**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	Device Inventory June 30, 2010	Act FY Ending June 30, 2010		Est FY Ending June 30, 2011		Req FY Ending June 30, 2012	
		No. of Devices	Actual Cost	No. of Devices	Estimated Cost	No. of Devices	Requested Cost
A. CELLULAR PHONES (63435)							
63435 Cellular Phones							
Total (A)							
B. PAGERS (63434)							
63434 Pagers, Paging Equipment							
Total (B)							
C. WIRELESS PERSONAL DIGITAL ASSISTANTS (63435)							
63435 Wireless PDAs, Blackberry, etc							
Total (C)							
GRAND TOTAL <i>(Enter on Line 1-D-4 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE E
SUBSIDIES, LOANS & GRANT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012
A. SCHOOL GRANTS TO COUNTIES & MUNICIPALITIES (64000-64599)			
TOTAL (A)			
B. GRANTS TO I.H.L. & OTHER POLITICAL SUBDIVISIONS (64600-64699)			
TOTAL (B)			
C. GRANTS TO NON-GOVERNMENT INSTNS & INDS (64700-64999)			
TOTAL (C)			
D. DEBT SERVICE & JUDGEMENTS (65000-65399)			
TOTAL (D)			
E. OTHER (66000-89999)			
Cost Share on Joint Industry / University / Federal	282,831	285,000	285,000
Fellowships	33,000	37,000	37,000
Service Center Support	57,518	60,000	60,000
Start-up Commitments	70,500	75,000	75,000
TOTAL (E)	443,849	457,000	457,000
GRAND TOTAL <i>(Enter on Line I-E of Form MBR-1)</i>	443,849	457,000	457,000
FUNDING SUMMARY:			
GENERAL FUNDS	443,849	457,000	457,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	443,849	457,000	457,000

NARRATIVE
2012 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems
Name of Agency

The CAVS facilities consist of four components - Research, Dynamometer, and Fabrication facilities in Starkville in the Thad Cochran Research, Technology and Economic Development Park at Mississippi State University, and Extension in Canton near the Nissan Plant. CAVS is in a strong growth mode and is serving as a catalyst as a regional resource for the recruiting of automotive, aerospace, and related industries. The recent recruitments of PACCAR and Toyota to the State of Mississippi were facilitated by the core competencies in research, extension, and automotive-related academic prowess at CAVS. Maturation of the research effort is evident via several measures - publications, awards, MURA company creation, patent disclosures, and student production. The impact on the State of Mississippi's manufacturing industry is best exemplified by CAVS being named the recipient of the 4th annual Mississippi Automotive Manufacturing Association "Award for Excellence" for its leadership and support of MAMA's mission to grow, develop, and improve the auto industry in the state. As for students, the recognition for two straight years in the DOE/GM Challenge X program that the MSU team was #1 is hard to beat. Also, the student team for the DOE/GM EcoCAR Challenge has just won Year 2 of that competition. This national winning tradition of CAVS' students serves as evidence of the quality of graduates for the state and automotive industry being produced by MSU's engineering programs and CAVS.

CAVS represents a commitment by the State of Mississippi to work with and support Mississippi industry through project-based activities. The management at CAVS and the research team, in general, recognize the need to generate economic development via technological and scientific discovery. This means CAVS serves as a knowledge resource for existing and future Mississippi industries. As with all academic research centers, CAVS is dependent on stable infrastructure support to ensure that the best and brightest engineering talent is brought to bear on the regional growth initiatives and development of a strong R&D infrastructure to support the emerging Southern Automotive Corridor. CAVS is a member of Mississippi Automotive Manufacturing Association and its Director serves on MAMA's Board of Directors. CAVS has also established a close, working relationship with the Nissan assembly facility in Canton and various industries across the state. CAVS faculty and staff are continuing to work closely with MDA and local economic development authorities throughout the state in recruiting new industry to the state. The State infrastructure funds allow CAVS to build toward its basic mission, with already much evidence of impact via an effective engineering capability to support Mississippi industry. Having access to knowledgeable researchers and providing leading edge capabilities is an important asset for the State.

Recurring State funding for CAVS is required as the foundation continues to be built via the development of the facilities, staff, and knowledge base. Current State funding is critical to supporting the infrastructure while seeding new research initiatives, student activities, and engineering extension. Further, many recent activities have helped Mississippi industry via workforce training, short courses, and partnerships designed to attract federal and industrial funding. At present, the State support is providing less than 20% of the total CAVS operating funds. Continued leveraging of the State funding is critical to building a self-sustaining organization satisfying the obligations of CAVS to our partners, the state, and the university.

In 2012, CAVS State funding will be used to help with infrastructural costs associated with new industry that need technical support (e.g., the new PACCAR diesel engine manufacturing facility, Toyota vehicle production, aerospace activities) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned, it was focused on conventional automotive vehicles (i.e., gasoline fueled internal combustion engines) and a manufacturing focus in the Canton area. We are now discovering that the industry is changing to biofuels and electric hybrids. CAVS' work with ChallengeX and EcoCAR has positioned it well to support the needs of Nissan, Toyota, and their Tier 1 and 2 supply chains; however, there is a need to update CAVS' facilities to better provide the level of support necessary for the expanding Mississippi vehicle industry. Also, there is a need to reach out beyond the Canton-based engineering extension activity and to better support state industry. This continued funding will be used to situate CAVS to better support Mississippi industry (both automotive and aerospace) over the next 5 years.

NARRATIVE
2012 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems _____
Name of Agency

**OUT-OF-STATE TRAVEL
FISCAL YEAR 2010**

MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2010 on Form Mbr-1, line I.A.2.b.

Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Albert Allen	ORLANDO, FL	SOUTHERN AGRICULTURAL ECONOMICS ASSOCIATION M	445	G.F.
Eric Blades	PORTLAND, OR	SUPER COMPUTING CONFERENCE	2,075	G.F.
Victor Branch	SLIDELL, LA	SUPPORT THE SUMMER ENGINEERING EXPERIENCE WOR	583	G.F.
Victor Branch	INDIANAPOLIS, IN	AMERICAN TECHNICAL EDUCATION ASSOCIATION CONF	1,015	G.F.
Victor Branch	ST LOUIS, MO	PRESENT AT NATIONAL ASSOCIATION FOR CAREER &	1,393	G.F.
Angela Card	HUNTSVILLE, AL	DEMONSTRATE SPEED CONTROL DEVICE	272	G.F.
Florina Ciorba	PORTLAND, OR	SUPERCOMPUTING CONFERENCE	2,068	G.F.
Tracie Crosswhite	SAN ANTONIO, TX	NATIONAL COUNCIL OF UNIVERSITY RESEARCH ADMIN	1,404	G.F.
Teena Garrison	ST. LOUIS, MO	IMAGE SOCIETY CONFERENCE	1,074	G.F.
Tomasz Haupt	PORTLAND, OR	ATTEND SUPER COMPUTING	2,230	G.F.
Tomasz Haupt	SEATTLE, WA	INTREGRATED COMPUTATIONAL MATERIALS ENGINEERI	1,569	G.F.
Mark Horstemeyer	RICHLAND, WA	VISIT PACIFIC NORTHWEST LABORATORY	1,541	G.F.
Mark Horstemeyer	SEATTLE, WA	ATTEND FUNDAMENTAL METHODS AND MODELS PROGRAM	1,541	G.F.
Mark Horstemeyer	WASHINGTON, DC	VISIT NATIONAL INSITUTE OF STANDARDS AND TECH	1,134	G.F.
Delwar Hossain	LA JOLLA, CA	SUMMER SCHOOL MOLECULAR SIMULATION AND MODELI	142	G.F.
Gail Jackson	MURFREESBORO, TN	SOUTHERN AUTOMOTIVE CONFERENCE	224	G.F.
Roger King	MYSTIC, CT	ATTEND THE FIFTH INTL MULTITEMP	405	G.F.
Roger King	WASHINGTON, DC	SENATE STAFFERS MEETING	1,171	G.F.
Michael Mazzola	JACKSONVILLE, FL	ATTEND SOUTHERN TRANSPORTATION AND AIR QUALIT	946	G.F.
G. Marshall Molen	BOSTON, MA	ATTEND THE 2009 PLUG-IN CONFERENCE	1,202	G.F.
G. Marshall Molen	DEARBORN, MI	PRESENT A PAPER AT THE 2009 VEHICLE POWER AND	1,075	G.F.
G. Marshall Molen	HUNTSVILLE, AL	DEMONSTRATE SPEED CONTROL DEVICE	223	G.F.
Michael Remotigue	WHITE PLAINS, NY	GRIDPRO TRAINING CLASS	2,198	G.F.
Bryan Robbins	SAN DIEGO, CA	DIGITAL HUMAN MODELING INTERNATIONAL CONFEREN	1,525	G.F.
Zachary Rowland	MURFREESBORO, TN	SOUTHERN AUTOMOTIVE CONFERENCE	597	G.F.
Tonya Stone	LAS VEGAS, NV	INTERNATIONAL CONFERENCE ON POWDER METALLURGY	1,153	G.F.
Mark Tschopp	LAKE BUENA VISTA, FL	AMERICAN SOCIETY OF MECHANICAL ENGINEERS CON	1,119	G.F.
Liang Wang	FORT MYERS, FL	INTERNATIONAL CONFERENCE WELDS	1,384	G.F.

**OUT-OF-STATE TRAVEL
FISCAL YEAR 2010**

MSU - Center for Advanced Vehicular Systems

 Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2010 on Form Mbr-1, line I.A.2.b.

Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Matthew Young	HUNTSVILLE, AL	DEMONSTRATE SPEED CONTROL DEVICE	278	G.F.
Total Out of State Travel Cost			\$31,986	

FEES, PROFESSIONAL AND OTHER SERVICES
(EXPENDITURE CODES 61600-61699)

MSU - Center for Advanced Vehicular Systems

Name of Agency

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012	Fund Num.
Laboratory & Testing Fees					
CAVS Service Center 0663 JUNE 2009 / CNC Mill Use <i>Comp. Rate: \$50/hour</i>		100			General
CAVS Service Center 0654 JUNE 2009 / CNC Mill, MTS Comp/Tens <i>Comp. Rate: \$50/hr, \$350/day +\$1/addl</i>		3,821			General
CAVS Service Center 0715 JULY 2009 / X-Ray CT <i>Comp. Rate: \$60 hour</i>		3,141			General
CAVS Service Center 0732 AUGUST 2009 / Axiovert, Met Lab <i>Comp. Rate: \$44,\$68/hour respectively</i>		866			General
CAVS Service Center 0778 OCTOBER 2009 / CNC Mill <i>Comp. Rate: \$60/hour</i>		270			General
CAVS Service Center 0755 SEPTEMBER 2009 / CNC Mill <i>Comp. Rate: \$50/hour</i>		75			General
CAVS Service Center 0760 SEPTEMBER 2009 / MTS Comp/Tens <i>Comp. Rate: \$350/day +\$1/addl hr</i>		855			General
CAVS Service Center 0854 FEBRUARY 2010 / Instron 5882 <i>Comp. Rate: \$40/hour</i>		40			General
CAVS Service Center 0685 JUNE 2009 / CNC Mill <i>Comp. Rate: \$50/hour</i>		75			General
CAVS Service Center 0694 JUNE 2009 / X-Ray CT <i>Comp. Rate: \$60/hour</i>		705			General
CAVS Service Center 0795 NOVEMBER 2009 / CNC Mill, Met Lab <i>Comp. Rate: \$60, \$70/hr respectively</i>		216			General
CAVS Service Center 0813 DECEMBER 2009 / CNC Mill, MTS Comp/Tens <i>Comp. Rate: \$60,\$54/hr respectively</i>		711			General
CAVS Service Center 0815 DECEMBER 2009 / Axiovert, Hardness Tester <i>Comp. Rate: \$15,\$87/hr respectively</i>		709			General
CAVS Service Center 0816 DECEMBER 2009 / Talysurf <i>Comp. Rate: \$30/hour</i>		1,815			General
CAVS Service Center 0829 JANUARY 2010 / CNC Mill, Instron 8850 <i>Comp. Rate: \$80/hr & \$450/day resp.</i>		594			General
CAVS Service Center 0678A JUNE 09 / FE-SEM, Met Lab <i>Comp. Rate: \$64,\$68/hr respectively</i>		494			General
CAVS Service Center 0701A JULY 09 / FE-SEM, Instron 5869 <i>Comp. Rate: \$750/day & \$64/hr resp.</i>		3,516			General
CAVS Service Center 0721A AUGUST 09 / FE-SEM, Instron 5869 <i>Comp. Rate: \$750/day & \$64/hr resp.</i>		1,832			General
CAVS Service Center 0740A SEPTEMBER 09 / Axiovert, Met Lab <i>Comp. Rate: \$44,\$68/hour respectively</i>		1,272			General
CAVS Service Center 0734 AUGUST 09 / MTS Comp/Tens >6hours <i>Comp. Rate: \$350/day +\$1/addl hr</i>		1,420			General
CSC 0852 FEB 2010 / Instron 5869 <i>Comp. Rate: \$30/hour</i>		90			General
CSC 0849 FEB 2010 / CNC Mill, FE-SEM, Inston 8850 <i>Comp. Rate: \$60,\$65,\$70/hr resp.</i>		1,190			General
CSC 0860 MARCH 2010 / EVO-SEM, Met Lab, FE-SEM <i>Comp. Rate: \$65,\$70,\$65/hr resp.</i>		1,786			General
CSC 0899 APRIL 2010 / Instron 5869 <i>Comp. Rate: \$30/hour</i>		720			General
EST SERVICE CTR CHGS IN FY11/12 / Laboratory & Testing Fees <i>Comp. Rate: varies</i>			30,030	30,030	General

FEES, PROFESSIONAL AND OTHER SERVICES

MSU - Center for Advanced Vehicular Systems

Name of Agency

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2010	(2) Estimated Expenses FY Ending June 30, 2011	(3) Requested for FY Ending June 30, 2012	Fund Num.
TOTAL Laboratory & Testing Fees		<u>26,313</u>	<u>30,030</u>	<u>30,030</u>	
GRAND TOTAL (61600-61699)		26,313	30,030	30,030	

VEHICLE PURCHASE DETAILS

MSU - Center for Advanced Vehicular Systems _____

Name of Agency

Year	Model	Person(s) Assigned To	Vehicle Purpose/Use	FY2012 Req. Cost
				0
				0
			TOTAL VEHICLE REQUEST	0

**VEHICLE INVENTORY
AS OF JUNE 30, 2010**

MSU - Center for Advanced Vehicular Systems _____

Name of Agency

Veh. Type	Vehicle Descript.	Model Year	Model	Person(s) Assigned To	Purpose/Use	Tag Number	Mileage On 6-30-10	Average Miles per Year	Replacement Proposed	
									FY 2011	FY 2012
P	White 4-Door	2008	Saturn Vue XR	Marshall Molen	EcoCar Competition	G52144	11,500	5,000		

Vehicle Type = Passenger/Work

**PRIORITY OF DECISION UNITS
FISCAL YEAR 2012**

MSU - Center for Advanced Vehicular Systems _____
Agency Name

Program	Decision Unit	Object	Amount
Priority # 1			
Program # 1 : RESEARCH			
	Core Operations		
		Contractual	1,526
		Commodities	2,000
		Equipment	63,000
		Total	66,526
		General Funds	66,526
<hr/>			
Priority # 2			
Program # 2 : PUBLIC SERVICE			
	Core Operations		
		Equipment	12,000
		Total	12,000
		General Funds	12,000
<hr/>			

CAPITAL LEASES

MSU - Center for Advanced Vehicular Systems

Name of Agency

Vendor/ Item Leased	Original Date of Lease	Original Number of Months of Lease	Number of Months Remaining on 6-30-10	Last Payment Date	Interest Rate	Amount of Each Monthly/Yearly Payment			Total of Payments to be Made							
						Principal	Interest	Total	Actual FY 2010	Estimated FY 2011			Requested FY 2012			
										Principal	Interest	Total	Principal	Interest	Total	
/	//	0	0	//	.000											

Summary of 3% General Fund Program Reduction to FY2011 Appropriated Funding by Major Object

MSU - Center for Advanced Vehicular Systems _____

Major Object	FY2011 GENERAL FUND REDUCTION	AFFECT ON FY2011 STATE SUPPORT SPECIAL FUNDS	AFFECT ON FY2011 FEDERAL FUNDS	AFFECT ON FY2011 OTHER SPECIAL FUNDS	TOTAL 3% REDUCTIONS
PERSONAL SERVICES					
TRAVEL					
CONTRACTUAL SERVICES	(117,789)				(117,789)
COMMODITIES					
OTHER THAN EQUIPMENT					
EQUIPMENT					
VEHICLES					
WIRELESS COMM. DEVICES					
SUBSIDIES, LOANS, ETC					
TOTALS	(117,789)				(117,789)